Patent Claims

1. Method for the transmission of a digital data stream (100), in which information about a data clock (102) and about at least one data frame (101) of the digital data stream (100) is recovered from the digital data stream (100), having the following steps:

a) provision of the digital data stream (100), which comprises at least one data stream unit (108), the data stream unit (108) encompassing:

a1) at least one frame synchronization word (104) having M frame synchronization bits, and

a2) at least one data block (103) having N data bits (105);

b) reception of the digital data stream (100) in a data stream reception unit (203);

c) detection of the frame synchronization words (104) of successive data stream units (108) of the digital data stream (100) by means of a synchronization bit detection unit (201);

d) determination of the data clock (102) from a temporal spacing of the successive frame synchronization words (104) of the digital data stream (100) in a data clock determination unit (202); and

e) outputting of the data clock (102) in a manner dependent on the temporal spacing of the successive frame synchronization bits (104) of the digital data stream (100).

2. Method according to Claim 1,
characterized

in that the at least one frame synchronization word (104) comprises K frame synchronization bits.

3. Method according to Claim 1,
characterized
in that a frame start (110) of the at least one data frame (101) is defined by a frame synchronization word (104) when the frame synchronization word (104) is preceded by at least M=N+K+1 dummy bits.

4. Method according to Claims 1 and 2,
characterized
in that the N data bits of each data block (103) are preceded by K=2 frame synchronization bits.

5. Method according to Claims 1 to 3,
characterized
in that the N data bits of each data block (103) encompass the useful data to be transmitted.

6. Method according to Claim 5,
characterized
in that the at least one data block (103) has N=32 data bits.

7. Method according to Claim 3,
characterized
in that the at least M=N+K+1 dummy bits which precede the frame synchronization word (104) are provided as logic ones "1".

8. Method according to Claim 1,
characterized
in that the first data block (103) of each data frame (101) has header data.

9. Method according to Claim 8,

characterized
in that the header data contain superframe synchronization bits (109a-109m).

10. Method according to Claims 8 and 9,
characterized
in that the superframe synchronization bits (109a-109m) contained in the header data in each case indicate a start of an assigned superframe (106a-106m) by logic zeros (0).

11. Data stream receiver (200) for the reception and processing of a digital data stream (100) which is formed from at least one data stream unit (103), the data stream unit (108) encompassing:

a1) at least one frame synchronization word (104) having M frame synchronization bits, and

a2) at least one data block (103) having N data bits (105),

and the data stream receiver (200) encompassing:

b) a data stream reception unit (203) for receiving the digital data stream (100);

c) a synchronization bit detection unit (201) for detecting the frame synchronization words (104) of successive data blocks (103) of the digital data stream (100); and

d) a data clock determination unit (202) for determining a data clock (102) from a temporal spacing of the successive frame synchronization words (104) of the digital data stream (100).

12. Data stream receiver (200) according to Claim 11,
characterized

in that the data stream receiver (200) furthermore has a frame detection unit (206) for detecting a frame start (110).

13. Data stream receiver (200) according to Claim 11, characterized
in that the data stream receiver (200) furthermore has a superframe detection unit (204) for detecting a superframe start (205).

14. Digital data stream (100), which is transmitted in accordance with a method according to Claims 1 to 10, in which information about a data clock (102) and about at least one data frame (101) of the digital data stream (100) is recovered from the digital data stream (100), the digital data stream (100) encompassing:

a) at least one frame synchronization word (104) having M frame synchronization bits, and

b) at least one data block (103) having N data bits (105).

15. Interface module with a data stream receiver (200) according to Claims 11 to 13 for data transmission, in which information about a data clock (102) and about at least one data frame (101) of the digital data stream (100) is recovered from the digital data stream (100).